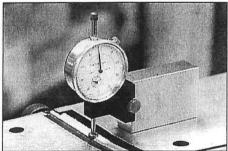
NEW 1-2-3 MicroGage NEW

BRING MACHINE SHOP ACCURACY TO YOUR WOODS HOP !!

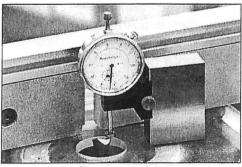
The new *1-2-3 MicroGage* combines the incredible precision of the 1-2-3-Block (0.0002") and the precision Dial Indicator (0.001") in a small compact footprint. The Dial Indicator Housing travels the full length of the 1-2-3 Block - held to the Block by rare earth magnets, imbedded in the Dial Indicator Housing - giving you smooth vertical and horizontal motion on all 4 sides of the 1-2-3 Block

The 1-2-3 MicroGage is perfect for the following measuring tasks:

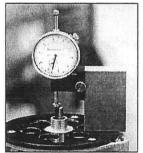
- * Measuring router bit height, on both handheld routers and router tables
- * Measure router /shaper fence offsets
- * Measure/set table saw blade height
- * Measure and adjust jointer knives
- * Check/adjust planer In-Feed and Out-Feed rollers for correct height
- * Square band saw blade to table with the 1-2-3 Block
- * Square fence perpendicular to 1-2-3 Block
- * Square saw blade to table with 1-2-3 Block
- * Square drill bits to drill press table with 1-2-3 Block
 - * PLUS MANY MORE USES



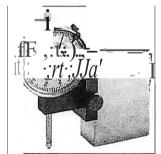
Adjust/set jointer knives



Router tables Adjust/set router bit heights



Hand held routers Adjust/set router bit heights



Measure drill bit diameters, etc.

1534 N. Moorpark Road, #505• Thousand Oaks, California 91360 •Phone/Fax: 805-492-4616

Press Release

The new **1-2-3** *MicroGage* offers precise measuring accuracy in a compact package. Take the combination of a precision *1-2-3 block* and a Dial Indicator - add dial indicator travel capability over the length of the *1-2-3 block* - and you get accuracy only found in the machine shop. Rare earth magnets embedded in the Dial Indicator Carriage allows the Carriage to slide smoothly and securely along any edge length of the 1-2-3 block. Turning the Lock Screw gently, will increase or decrease the resistance of the Dial Indicator Carriage movement in any vertical or horizontal position. Tighten the Lock Screw and you can secure the Dial Indicator Carriage at any position selected. Also included is a 3/8" diameter flat dial indicator tip- perfect for measuring round surfaces and blade edges.

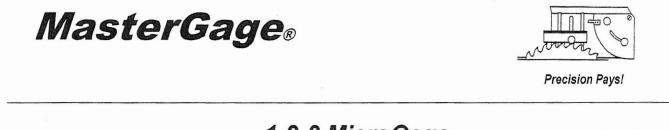
Now you can measure and set heights within thousandths of an inch on routers, jointer in-feed and out-feed table offsets, jointer knife heights, planer in-feed rollers, table saw blade heights plus many other applications. The *1-2-3* block by itself can be used to square up blades, bits, machine fences, etc. The *1-2-3 MicroGage's* small "foot print" will allow you to finally get into those hard to reach places and take those critical measurements.

The *1-2-3 MicroGage* is priced at \$119, available from *MasterGage.com*, and Amazon.com Call *MasterGage.com* Toll Free: 1-888-893-8300.PST to place your order today.

Website address: www.MasterGage.com. E-mail address: sales@mastergage.com

\mastergage\press release\1-2-3 microgage press release.com

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Part No. 115-01

1-2-3 MicroGage

Patent Pending

BRING INSANE ACCURACY TO YOUR WOODSHOP !!

Developed by a woodworker/engineer, the new **1-2-3** *MicroGage* combines the incredible precision and versatility of the 123 Block (0.0002/inch) and the Dial Indicator (0.001/inch) in a small compact footprint. The 123 Block is used worldwide by machine shops. The 123 Block measures 1.0 inch thick, by 2.0 inches wide, by 3.0 inches high, and is accurate to 0.0002/inch [2/10000 inch] on all sides.

The Dial Indicator Housing travels smoothly on all four sides of the 1-2-3 Block – and is held to the 123 Block by rare earth magnets, imbedded in the Dial Indicator Housing. This unique (*patent pending*) design gives you smooth Dial Indicator motion, both vertical and horizontally. The Red Thumb Lock Screw Assembly (with a spring washer) allows you to increase/decrease resistance ["feather" the motion]. Further tightening locks the Dial Indicator unit in any position.

The Dial Indicator has a 1.0 inch travel, (in 0.001" increments) and comes with a round dial indicator tip. Also Included in the package is a 3/8 inch diameter, hardened flat Dial Indicator tip, ideal for measuring round surfaces and blade edges. The enclosed hex wrench allows you to rotate and lock the Dial Indicator within the housing to any desired position. The included Magnetic Spacer Pad allows you to perform measurement procedures on flat horizontal surfaces. The **1-2-3 MicroGage** is housed in a custom foam lined box - for storage protection.

Listed are just a few of the MANY things that the 1-2-3 MicroGage can do:

Jointer - Measure/adjust & set all jointer knife heights and knife parallelism to outfeed table top,

Jointer - Measure infeed to outfeed height to determine depth of cut.

Planer - Measure/set infeed and outfeed rollers to correct height and set parallel to table surface

Planer - Measure/set planer knife height and set for parallelism to base [plenum].

Router/Shaper - Measure dull bit/cutter head height - replace with new bit/cutter to same height.

Router/Shaper - Measure router/shaper fence offset to bit/cutter.

Fences – Square all machine fences with the 123 Precision Block

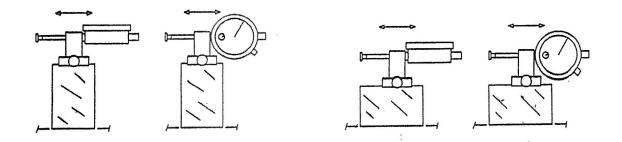
Drill Press/ Bandsaw - Square drill bit and Bandsaw blade to table top using precision 123 Block

Tablesaw – <u>NOTE</u>: The 1-2-3 MicroGage is <u>NOT</u> designed to calibrate or set-up tablesaws, however our SuperBar, Magnetic Saw Gage, MasterGage/Ciassic or MasterGage/Professional will.

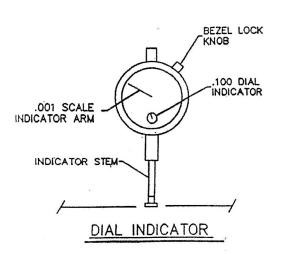
Drill Bits – Measure drill bit diameters. THERE ARE MANY, MANY MORE USES !! DISCONNECT POWER BEFORE USING THIS TOOL !!

\mastergage\product description\123 MicroGage Flyer Information.doc

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- <u>NOTE #1</u>: To prevent corrosion and rust, your steel 123 Block has been coated with paste wax. Reapply paste wax <u>after</u> using your *1-2-3 MicroGage* and <u>before storage</u>.
- <u>NOTE #2</u>: To increase/decrease friction on the movement of the Dial Indicator unit, gently adjust the spring loaded Red Lock Knob.



Dial Indicator Information:

- The Dial Indicator has a travel range of 1.0 inches
- The black numbers on the dial represent .010 inches [ten thousandths of an inch] or 10/1000
- Each black graduation line on the dial represents .001 inches [one thousandths of an inch]. As a reference, a human hair is 0.002 [2 thousandths] inches thick!
- Each time the large indicator arm rotates 360 degrees clockwise [.100 inch travel], the small dial moves counterclockwise to a number [1,2,3,4] on the small dial
- Example: In reading .257", the small dial would read 2 and the large indicator arm would read 27 on the large dial.

Using the Dial Indicator:

Move the Dial Indicator so that the indicator tip is contacting the desired surface. Allow the tip to deflect the indicator stem slightly. This is called "preloading" the Dial Indicator.

Loosen the bezel lock knob and rotate the bezel so that the "0" on the dial lines up with the indicator arm. This is called "zeroing out" the Dial Indicator.

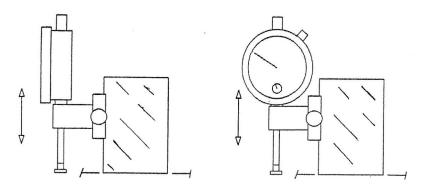
Tighten the bezel knob. You are now calibrated to measure from the desired surface.

Example: A router bit presently measures at .513" high in the router. You want to raise a router bit another .025". First, place the Dial Indicator tip onto the router top. Rotate the

"0 "on the bezel to line up with the large indicator arm. This will establish the base line "ZERO". Next, slowly raise the router to .025. Your final bit height will then be .513 + .025 = .538"

Use the free enclosed inch/metric chart for fraction/inch metric conversion

_Mastergage\product description\123 microgage\123 microgage in action



Router/Shaper:

- Measure/set router bits or shaper cutters height. Adjust heights. Use Flat Tip.
- Check router and spindle run out. Use Flat Tip

Table Saw:

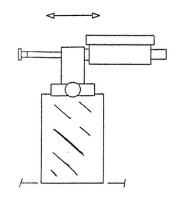
- Measure/set table saw blade height. Use Flat Tip
- Level Throat Plate even to, or slightly below table top surface. Use Round Tip
- Check motor arbor shaft for run out. Use Flat Tip
- Square table saw blade and rip fence to tabletop using the 1-2-3 Block

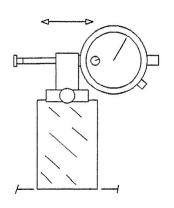
Drill Bits:

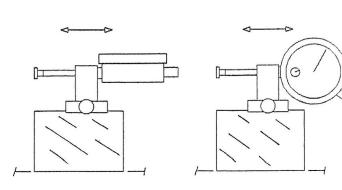
• Measure drill bit diameters accurately for diameter size. Use Flat Tip

Depth Gage:

- Check depth of blind drilled holes, dado depth or mortise depth holes

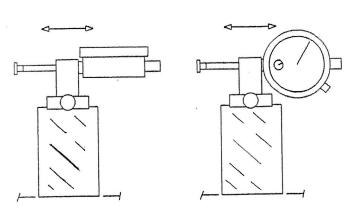


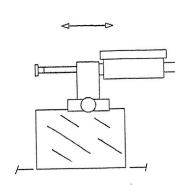


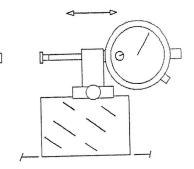


Drill Press:

- Check both quill and chuck run out Use flat tip
- Square drill bit to table with the 1-2-3 Block

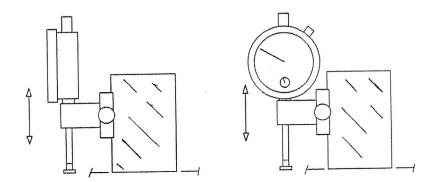






Stationary Disk Sander:

Check sanding disk wheel for run out Use Round Tip



Jointer: Procedure for adjusting/aligning or replacing jointer knives

- "Zero Out" the *1-2-3 MicroGage* Dial Indicator on the Out Feed table. Use flat tip. (This is "top dead center" [TDC]- the correct height for all the knives)
- Loosen and adjust ONE knife at a time, leaving the others untouched
- Adjust/set the knife cutting edge [over the full length] to the Zero on the Dial Indicator
- Use the same procedure for the remaining knives
- Square the jointer fence to the base table using the 1-2-3 Blo

HINT: Offset distance from In-Feed table to Out-Feed table is the depth of cut.

Planer:

 Set In- Feed and Out-Feed rollers to manufacturers height specifications. Verify roller parallelism to table (platen)

1-2-3 MicroGage is shown below with its Dial Indicator in the vertical up position. This vertical position is ideal for performing Planer measurements/adjustments. A 1-2-3 Block Spacer is required for maximum performance, as illustrated below.

1-2-3 MicroGage use on the Planer

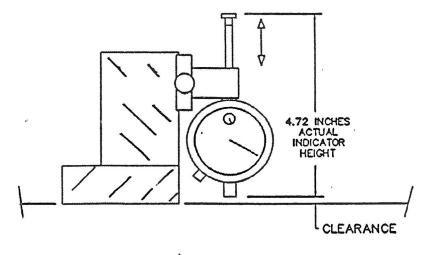
- Measure/set all cutter blades for correct height and parallelism
- Measure/set Pressure Bar for correct height and parallelism
- Measure/set In-Feed and Out-Feed Rollers for correct height and parallelism This is done with the Dial Indicator pointed in the down position

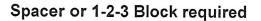
OPTION A

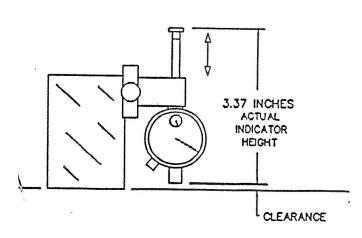
The supplied Dial Indicator, (2.25" diameter) shown in its vertical "up position" illustrates how it needs another spacer Block under the *1-2-3 MicroGage*, to give it enough height so that the Dial Indicator top stem does not "bottom out" on the table/platen surface.

OPTION B

The illustration below shows our smaller profile Dial Indicator (1.62" diameter) being used on a single 1-2-3 Block. Stem travel is approximately .30 inches. This smaller Dial Indicator will fit into your existing Dial Indicator Housing - no modifications required



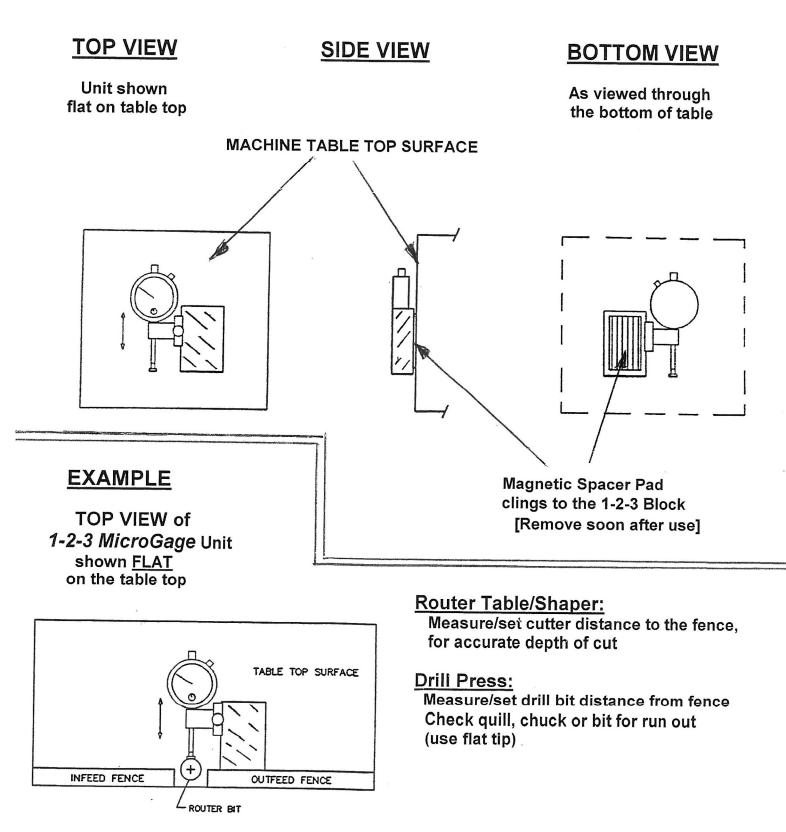




No Spacer Block Required

Small profile Dial Indicator shown in use: *MasterGage.com* Part No. 107-07 \$39.00

The 1-2-3 MicroGage shown below, is positioned FLAT on a surface plate/table. Simply attach the supplied "Magnetic Spacer Pad" to the back side of the 1-2-3 Block, as illustrated below. This will allow the Dial Indicator Housing to travel horizontally freely, without contacting the table top. You can now accurately measure/set horizontal distances, such as the following:



JOINTER: Procedure for measuring/adjusting/aligning or replacing jointer knives

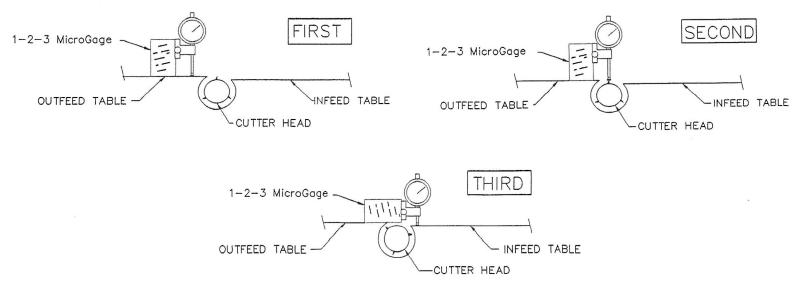
- <u>FIRST</u>: Place the *1-2-3 MicroGage* on the Outfeed Table. Next, "Zero Out" [See page 2 of 7] the Dial Indicator on the Out Feed table, using flat tip. (This position establishes "Top Dead Center" [TDC]- which is the correct height for <u>all the knives</u>) next, rotate the cutter blade/head back and forth slightly to find the highest position [TDC]. Once found, secure the cutter head with tape,
- <u>SECOND</u>: Leaving the 1-2-3 Block on the Outfeed Table position the flat tip on ONE knife edge. Then gently pass the flat tip over the full length of the cutter blade. The Dial Indicator should read "0" at all points.

<u>THIRD</u>: If the blade is not at "0", Loosen and adjust only ONE knife at a time, Raise/lower the knife to "zero" on the Dial Indicator, over the knife's full length. This assures blade parallelism – and a smooth cut.

- Use the same procedure for the remaining knives
- Square the jointer fence to the base table using the 123 Block
- Use a long [24" or longer] Straight Edge to establish parallelism of Outfeed Table to Infeed Table
- To determine the "depth of cut", simply place the *1-2-3- MicroGage* unit on the Outfeed Table and "zero out" the Dial Indicator on the <u>Outfeed Table</u>. Next, leaving the *1-2-3 MicroGage* body <u>on</u> the <u>Outfeed Table</u>, place the Dial Indicator tip <u>on the Infeed Table</u>. Adjust [move] the Outfeed table up/down to get the desired cut required.

NOTE #1: If more hold down force required to secure the 1-2-3 MicroGage to steel table top, consider using the Magnetic Saddle Block Accessory, Part no 115-14

NOTE #2. The 1-2-3 MicroGage can also be used to measure/adjust/align Jointer carbide cutter heads in a similar manner.



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THICKNESS PLANER:

Position Dial Indicator in DOWNWARD POSITION on the Planer Platen (table)

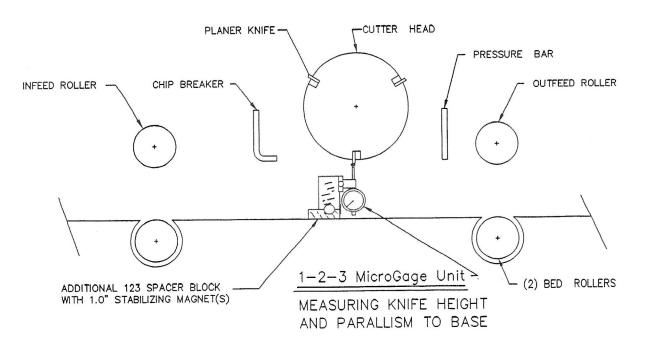
• Measure/set the Bed Rollers (both generally rubber) for proper height and parallelism. Also the Infeed Roller (serrated steel roller)

Position Dial Indicator in UPWARD POSITION on the Planer Platen (table)

• With the flat tip installed, check and adjust the following items illustrated in the drawing shown below. Check your Planer Owner's Manual for dimension details.

#1 Planer Knives - #2 Chip Breaker - #3 Pressure Bar - #4 Upper Infeed Roller[s]#5 Upper Outfeed Roller[s] - #6 Cutter head

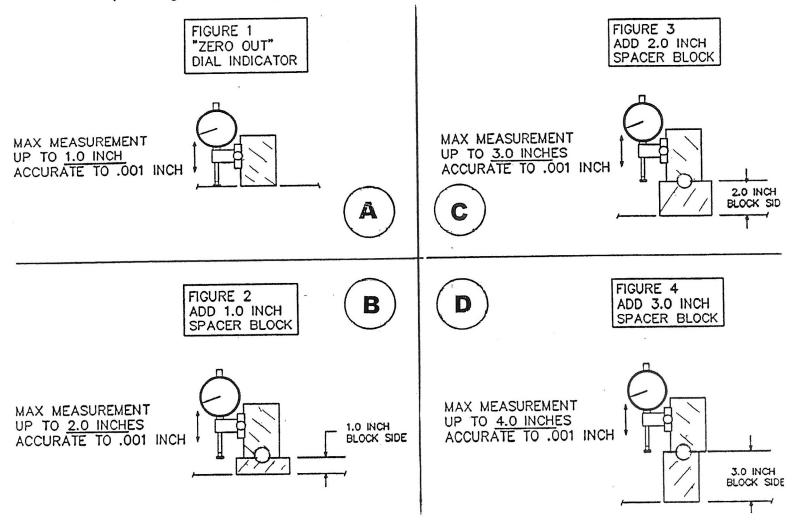
1-2-3 MicroGage is shown below with its Dial Indicator in the VERTICAL UP position. The Dial Indicator, illustrates how it requires another 1-2-3 Block or a 1.0" spacer Block under the *1-2-3 MicroGage*, to give it enough height so that the Dial Indicator top stem does not "bottom out" on the table/platen surface.



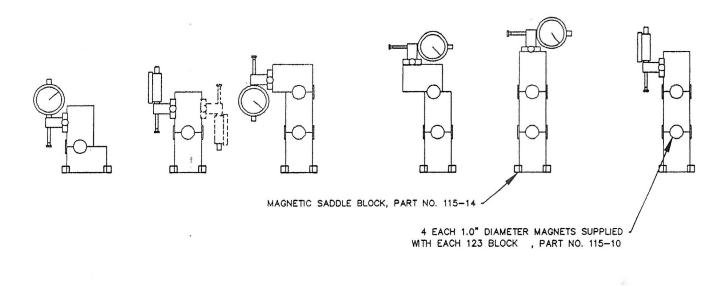
Your *1-2-3 MicroGage* is a simple, but very powerful tool. Illustrations below show multiple uses, by simply adding a 123 Block as a spacer block (add more Blocks for greater height, if needed). The illustrations show that you can go to 4 inches high (or even higher), while maintaining an accuracy of 0.001 inches (1/1000) inches over the full height selected.

INSTRUCTIONS

"Zero Out" (see bottom of Page 2) the dial indicator tip against the table/platen surface as illustrated. Measure/read the desired height on the Dial Indicator and ADD Block height (1.0, 2.0 or 3.0 inches) as required to get the total height.



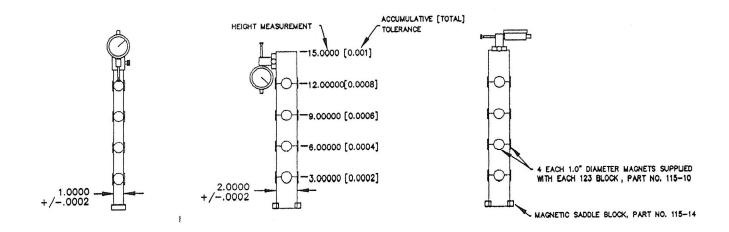
1-2-3 MicroGage is a simple, but very powerful tool - its uses only limited by your imagination!



Several 1-2-3 Blocks can be stacked one on top another, and still maintain extreme accuracy. Since each block is accurate to 0.0002 [2/10000] or 2 tenths of one thousandth of an inch. Example: 5 blocks can be stacked one on top of the other as shown below and the total height would still be within 0.001 inch accuracy. That is to say, each block is accurate to 0.0002 inches. If 5 blocks stacked [in any manner] it would be 5 x 0.0002 inches or 0.0010 inches, or one thousandths of an inch accuracy. Pretty incredible accuracy!!

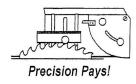
NOTE: ONLY ONE 1-2-3 Block is included in your 1-2-3 MicroGage package.

MasterGage.com sells additional 1-2-3 Blocks, each one supplied with 4 stabilizing magnets.

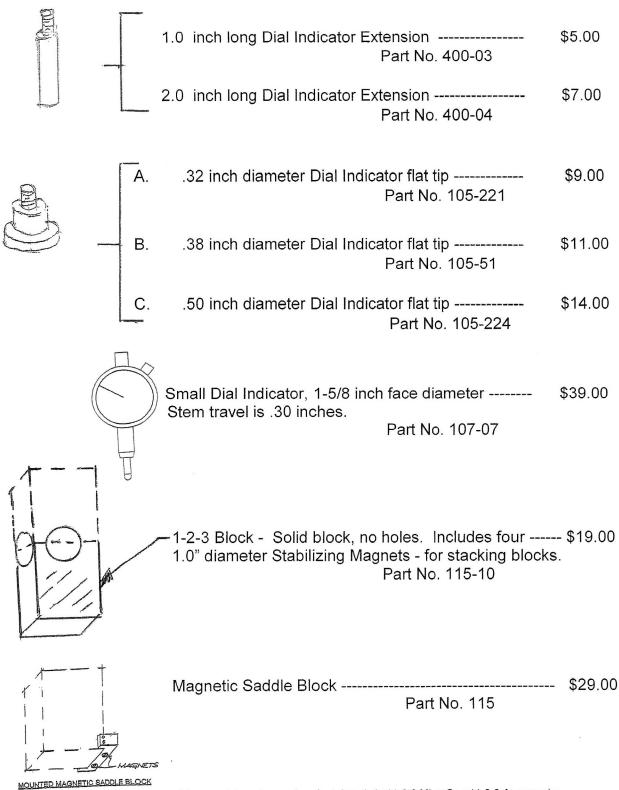


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11/12 *MasterGage*



1-2-3 MicroGage Accessories



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E-Mail							
CK'D Qty	Shipped Part	#	Description		Price	Total Price	
	430-	01 Magnetic SawGa	age (3/4"Slots)For	STEEL table top	\$ 127	\$	- Call us to Ord
	400-				\$ 69	\$	
	405-	01 SuperBar Shops	mith (.720" Slots) -Made of Delrin	\$ 89	\$	
		412-01 MasterPlate #1-two 5/8" h		les	\$ 73	φ	Call us to Orde
	410-	0-01 <i>MasterPlate</i> #2-two 5/8" holes+ two 1.0" holes (4) 5-01 <i>MasterPlate</i> #3-two 5/8" holes+ two 1-1/4" holes			\$ 73	\$ Call us to Ord	
	415-				\$73 \$73		
	411-		MasterPlate #4- two 5/8" holes + two 30mm holes			\$	Call us to Orde
	- 106-		Universal Angle Guide & Height Gauge (23) Mini-Magnetic Base (no Dial Indicator)		\$ 66	\$	Call us to Orde
	110-				\$ 38 \$ 85	\$	4
	230-		Planer Black Series(25) 1-2-3 MicroGage - solid block, no holes (24) Magnetic Saddle Block 123 Block -supplied with four 1.0"stabilizing magnets			\$	See
	115-	01 1-2-3 MicroGage				\$	
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	115-					\$	
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		ACCESSORIES-			\$8	ļ	e e
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	105-5					\$	
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	105-2		1.0 inch Dial Indicator Extension (@ #)(7)2.0 inch Dial Indicator Extension (@ #)(6)			\$	Side
	400-0					\$	
	400-0					\$	
	105-1		Assorted Dial Indicator Tips (22 pieces) (16)		\$ 19 \$ 26	\$	_
	120-0		Memory Link (fits Pro model only)(#)(11)Dial Indicator Quick Change Adapter(10)			\$	
	105-9				\$ 39 \$ 34	\$	-
	105-0	3.0 inch Heigh	t Extension	(15)		\$	
	105-4		g Precision Stee		\$ 9 \$ 7	\$	-1
	120-0	05 1/4"dia x 3-1/2 l	ong Precision S.	S.Rod (@ #) (13) Model (5)	\$ 7 \$ 35	\$	-
	105-5		ssic and/or Pro		\$ 29	\$	
	107-0		/4" dia face, 1.0	travel001 (29)	\$ 39	\$	-1
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